

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A laser element comprising:

a heat sink which is ~~made~~ comprised of one of copper and copper alloy, and  
which has comprises a fixation surface having a predetermined shape; and

a nitride-based semiconductor laser bar which ~~has~~ comprises at least three light-emission points formed on a substrate,

wherein and the nitride-based semiconductor laser bar is bonded to said heat sink with a brazing material ~~containing~~ comprising gold and one of tin and silicon as main components, by pressing the nitride-based semiconductor laser bar toward said fixation surface with a tool having a shape corresponding to the predetermined shape of the fixation surface, during a brazing operation.

2. (withdrawn): A method for producing a laser element, comprising the steps of:

(a) placing a brazing material between a nitride-based semiconductor laser bar and a fixation surface of a heat sink, where the brazing material contains gold and one of tin and silicon as main components, the nitride-based semiconductor laser bar has at least three light-emission points formed on a substrate, the heat sink is made of one of copper and copper alloy,

and the fixation surface has a predetermined shape; and

(b) fixing said nitride-based semiconductor laser bar to said fixation surface by melting and solidifying said brazing material while pressing the nitride-based semiconductor laser bar toward the heat sink with a tool having a shape corresponding to said predetermined shape of the fixation surface.

3. (currently amended): A laser module comprising:

an optical fiber;

a laser element which ~~includes~~comprises;

a heat sink which is ~~made~~comprised of one of copper and copper alloy,  
and which ~~has~~comprises a fixation surface having a predetermined shape; and

a nitride-based semiconductor laser bar which ~~has~~comprises at least three light-emission points formed on a substrate, wherein the nitride-based semiconductor laser bar emits laser beams from the at least three light-emission points, and is bonded to said heat sink with a brazing material ~~containing~~comprising gold and one of tin and silicon as main components, by pressing the nitride-based semiconductor laser bar toward said fixation surface with a tool having a shape corresponding to the predetermined shape of the fixation surface, during a brazing operation; and

an optical condensing system which optically multiplexes said laser beams, and ~~makes~~directs the optically multiplexed laser beams ~~enter~~into said optical fiber.

4. (new): The laser element according to claim 1, wherein the fixation surface has a predetermined area; and

wherein the tool has an area corresponding to the predetermined area of the fixation surface.

5. (new): The laser element according to claim 1, wherein the nitride-based semiconductor laser bar is bonded to said heat sink with the brazing material, by pressing the nitride-based semiconductor laser bar, with the tool, on substantially an entire area of a surface of the nitride-based semiconductor laser bar, during the brazing operation.

6. (new): The laser element according to claim 1, wherein a length of the tool is approximately equal to a longitudinal size of the nitride-based semiconductor laser bar.

7. (new): The laser element according to claim 1, wherein the nitride-based semiconductor laser bar comprises a plurality of semiconductor layers formed on the substrate so as to realize the at least three light-emission points.